claims 36, 37 and 38 should be in a condition for allowance. Claims 41-44 have been added to further define the applicable environment where the applicant's invention could be utilized.

Below is an analysis of the prior art references compared to the applicant's amended claim. The references cited by the Examiner involve transmitters which transmit a plurality of frequencies at random and do not actuate a control element. Therefore, the Applicant respectfully traverses the Examiner's rejection of claims 35-38.

The Clark reference consists of a laser telemetry system placed within a projectile which allows for the transmission of a laser pulse at a first frequency in the absence of a desired condition and transmission of a laser pulse at a second frequency in the presence of a condition. (Col. 3, Lines 6-27). The Clark reference addresses the transmission of a plurality of frequencies which are not predetermined, but are based upon the uncertain occurrence of a condition. Additionally, the Clark reference discusses the use of a receiver installation which comprises a collecting lens, a receiver, and a decoder for demodulating and recording the information transmitted. (Col. 2, Lines 27-34). However, the receiving installation is not apart of the invention and there is no discussion of a control element within the specification or the claims.

With respect to the applicant's dependent claims 36-38, the Clark reference fails to disclose a first frequency to cue the processor that a multifrequency signal is arriving nor does the Clark reference disclose a second frequency that cues the processor that all of the signals have been transmitted and that a processor should generate an output signal for actuation of a primary controlled elements. The Clark reference does incorporate a self-contained thermal power supply, however there is no interlock means on the power supply to prevent actuation of a primary control element.

The Shimizu reference involves the transmission of a plurality of frequencies generated when the user of a vernier caliper measures the various dimensions of an object. (Col. 2, Lines 27-52). A charge sensor is located on the vernier calipers and any adjustment made in the jaws of the vernier calipers when measuring an object causes a change in capacitance. The charge sensor outputs a DC analog signal which is converted to a digital value by the A/D converter and the digital signal is input into the input/output interface of the control unit. In the control unit, the data signal at a "0" level is modulated with a frequency F1 and a data signal at a "1" level is modulated with a frequency F2. The frequency-modulated data message which includes signals modulated with frequency F1 and signals modulated with frequency F2 is then transmitted from the transmitter. (Col. 7, Lines 67-68; Col. 8, Lines 1-7). Therefore, the distinguishing element of the Shimizu reference in comparison to the applicant's invention is the transmission of a plurality of random frequencies which are representative of the various dimensions of an object measured using a vernier caliper.

The Shimizu reference, unlike the applicant's invention, does not disclose a first frequency which cues a processor that a multifrequency signal is fully transmitted nor does the Shimizu reference disclose a second frequency that cues the processor that the multifrequency signal has been fully transmitted and thereby instructs the processor to issue an output signal to activate the primary control element.

The Zimmerman reference involves the transmission of brain activity data from a portable transmitter, consisting of four separate circuit boards, to a processing console. The first board, a montage board, is used to selectively configure the connections between the electrodes and the transmitter. The amplifier board amplifies the small signals detected by the electrodes on

an individuals scalp. (Col. 5, Lines 15-16). The processor board digitizes the signals and calculates a checksum. The processor board then converts the digitized signals and checksum into a code suitable for transmission and generates a serial data stream from the numbers coded in the selected code. (Col. 6, Lines 36-44; Col. 7, Lines 20-29). Finally, the transmitter board coverts the signals into radio frequency signals for transmission. The serial data stream is delivered through an amplifier to an oscillator where the binary states of the digital signal are represented by two different frequencies. Additionally, the rate of frequency change of the oscillator may be selectively changed within the imposed regulations to meet other selected output requirements as well. (Col. 6, Lines 37-49).

Claim 35, as amended, is distinguishable over the Zimmerman reference based upon the fact that the Zimmerman reference does not transmit a predetermined plurality of frequencies. The Zimmerman reference transmits data representative of the signals generated on the individuals scalp, which are not predetermined.

Following the transmission of the data from the transmitter, the data is received by the receiver antenna and delivered to a combination TV tuner and frequency shift key receiver. The frequency shift key receiver outputs a reconstituted data stream which is substantially identical to the data stream generated by the microprocessor. The data stream is sent to a decoder for converting the coded data to a synchronous nonreturn-to-zero code. After a microprocessor inspects the checksum for any distortion which may have occurred during transmission, the data is sent to a second communications interface where the data may then be displayed or recorded.

The Zimmerman reference, unlike the applicant's invention, does not discuss the use of a control element. In Zimmerman, the data is transmitted to the receiver and is recorded or

displayed on the processing console. There are no additional elements controlled by the processing console.

The applicant's invention is further distinguished from the Zimmerman reference in that the Zimmerman reference does not disclose a first frequency that prompts a processor that a multifrequency signal is arriving nor does the Zimmerman reference disclose a second frequency which prompts the processor that the multifrequency signal transmission has terminated and thereafter the processor should issue an output signal for activating a primary control element.

The Simpson reference addresses a wireless digital voice-data communication system. The communication system consists of a base network control unit, a plurality of portable radio sets, and a plurality of radio ports consisting of digital transceiver. The base network control unit is able to generate a frequency hopping signal and the radio ports and portable sets can transmit and receive the frequency hopping signal. This frequency hopping signal allows for the operation of portable sets in presence of interfering signals while obtaining a high degree of privacy. The hop consists of a period of time spanning 880 bit times during which energy is transmitted in a fixed frequency band centered at f_k where $_k$ goes from one to seventy-seven. The seventy-seven frequencies can be used in their natural order or in a pseudo-random order when frequency hopping. The distinguishing element between the applicant's invention and the Simpson reference is the applicant's use of a predetermined plurality of frequencies and Simpson's use of a random plurality of frequencies. An example of the use of random frequencies in the Simpson reference occurs when one of the portable sets is energized. Upon energizing a portable set, the controller on the portable set will tune the frequency hopping receiver to one of the hopping frequencies. The receiver will remain tuned to the frequency for

at least one hopping cycle. If no output signal from the detector has been received by the controller after one hopping cycle, the controller will retune the receiver to a new frequency. (Col. 12, Lines 14-25). Additionally, when there is deterioration in the transmitted signal between the portable set and the radio ports, the control unit evaluates the degree of deterioration and, if necessary, automatically switches a portable set to a new transceiver to improve the reception. The control unit determines if the reception is better at a new transceiver, momentarily places the call on hold while the portable unit is instructed to retune its frequency hopping receiver and frequency hopping transmitter to the appropriate hop sequence. (Col. 14, Lines 49-68).

The applicant's invention is further distinguished from the Simpson reference in that the Simpson reference fails to disclose a first frequency which instructs a processor that a multifrequency signal is arriving and a second frequency which cues the processor that the transmission of the multifrequency signal has terminated and that the processor should output a signal for activating a primary control unit.

In view of the foregoing, allowance of the claims in the case is respectfully requested. The Examiner is invited to discuss this matter with Applicants' attorneys should any questions arise.

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I hereby certify that this paper, along with any referred to as being attached or enclosed, is being forwarded to the Commissioner of Patents and Trademarks, Washington, D.C. 20231, via the United States Postal Service, First Class mail, Postage Prepaid, ~~on this~~ the 16 day of May, 1997.